



Overview

The ABS series servo drive adopts interationally advanced hardware architecture and redundant design scheme

The key components are strictly screened and tested and the whole machine testing is strictly standardized. Each process adopts high standards, and the stability, reliability and control accuracy of the product are at the forefront the industry. It has passed CE and other international safety certification, and has extensive compatibility. It is a high-performance motion control product developed by AB specifically for the fields of robots/manipulators packaging machinery, and 3C non-standard automation equipment. It has rich interfaces, supports multiple communication methods and position encoders, and can be matched with AB series servo motors and mainstream servo motors in the market through simple settings. It has outstanding usability, strong universality, and can also meet the customized needs of special application scenarios.







Easy To Use



Stability



General



Precise

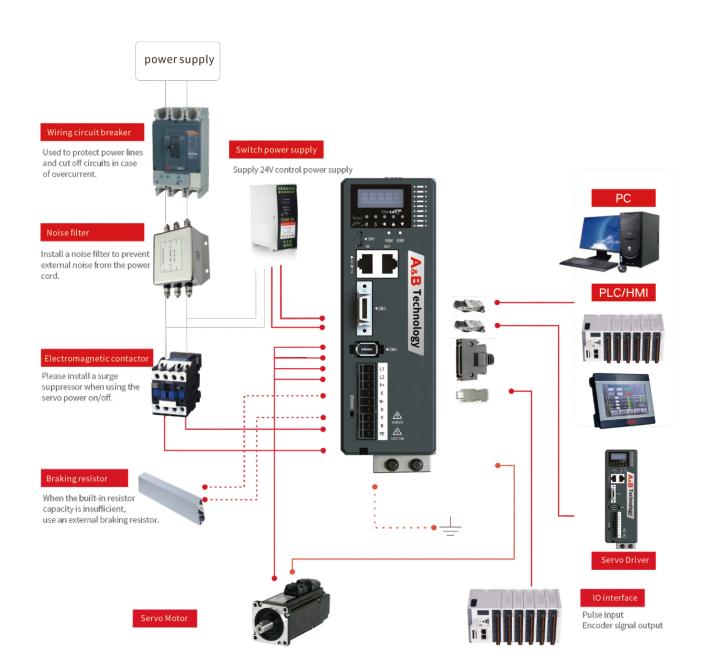
A&B

Universal compatibility, supporting multiple field bus communication protocols and encoders









A&B

AC servo drive models

		ABS10	series AC servo drive		
Model	power (kW)	output current (A)	maximum output current (A)	Size	Input power supplyM(V)
ABS10-02A*	0.2	1.6	5.8	SIZE-A	Single phase Ac220
ABS10-04A*	0.4	2.8	10.1	SIZE-A	Single phase Ac220
ABS10-07A*	0.75	5.5	16.9	SIZE-B	Single phase Ac220
ABS10-10A*	1.0	7.6	23.0	SIZE-B	Single phase Ac220
ABS10-15A*	1.5	11.6	32.0	SIZE-E	Single phase Ac220
ABS10-15B*	1.5	11.6	32.0	SIZE-E	Three phase Ac220
ABS10-15C*	1.5	5.4	14.0	SIZE-F	Three phase Ac380
ABS10-22C*	2.2	8.4	20.0	SIZE-F	Three phase Ac380
ABS10-30C*	3.0	11.9	29.75	SIZE-E	Three phase Ac380

Note: Control mode, encoder feedback type, etc. in the model are replaced with ".""

For more specific models, please refer to the model description and consult customer service.

Specification parameter table

	Project	Specification parameters		
Power supply	Main circuit	Single phase AC220V \pm 10%; Three phase 220V \pm 10%		
		Three phase 380V \pm 10%		
	Loop	Busbar power supply		
	Cooling method	≤0.4kW: natural cooling; >0.4kW: forced air cooling		
Control mode		FOC		
Mode		I/O communication, EtherCAT communication, Modbus communication		
Braking resisto	r	SIZE-A/B type external; SIZE-Etype built-in (connected when capacity is insufficient)		
	Maximum input pulse frequency	Optocoupler input: 200KHz Differential input: 2MHz		
	Pulse command mode	Pulse+direction; CW pulse+CCW pulse, Phase A+Phase B		
Position control mode	Command control mode	External pulse control/bus communication control		
controtmode	Feedforward gain	Internal parameter setting		
	Torque limit	Internal parameter setting		
	Electronic gear ratio	N=1~32767, M=1~65535, N/M=0.02~5000		
	Command control mode	Bus communication control/analog quantity		
Speed	Torque limit	nternal parameter setting		
control mode	Speed control range	1~6000rpm		
	Acceleration and deceleration methods	Linear acceleration and deceleration or S-shaped acceleration and deceleration		
_	Command control mode	Internal instructions/analog quantities		
Torque control mode	Speed limit	Internal parameter setting		
controttiloac	Torque control accuracy	±3%		
	Encoder frequency	A-phase, B-phase, Z-phase: differential output		
	division pulse output	Frequency division pulse number: (16~32768) can be set arbitrarily		
Digital		Number of points:8(pulse train)Number of points:7(Bus series)		
Input/Output	Assignable input signal	Servo enable/forward drive disable/reverse drive disable/bias count reset/zero speed clamp/alarm reset/origin input		
		Near origin input/forward limit position/reverse limit position, etc		
	Assignable innut signal	Number of points: 6 (pulse train) Number of points: 4 (Bus series)		
	Assignable input signal	A larm signal/positioning completed/speed reached/servo ready/zero speed detection/brake opening, etc. and reached/servo		
Protection function		$Overcurrent/overvoltage/undervoltage/overload/overheating/encoder\ error/speed\ deviation/position\ deviation/limit, expected to the contract of the contrac$		
Auxiliary functions		JOG mode/alarm recording/origin setting, etc		
Communication interface		Modbus-RTU/CANopen/EtherCAT		
Encoder feedback type		Absolute value formula: 17bit/23bit (single or multiple cycles); Magnetic/Optical Encoding		



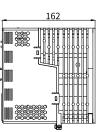
Project		Specification parameters
Protection grade		lp20
	Usage temperature	-10 °C~+50°c (When the ambient temperature is between 40 'C~50 'c, the average load rate should not exceed 80%)
environmental condition	Humidity	Below 90% RH (no freezing or condensation allowed)
	Vibration &Impact	Vibration below 4.9m/s²; Impact below 19.6m/s²
	Altitude	The highest usage altitude is 2000m. At an altitude of over 1000m, for every 100m increase, the power decreases by 1.5%
	Others	No static interference, strong magnetic field, strong electric field, no corrosive gases, flammable gases, oil stains, dust, etc

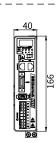
External dimensions

SIZE-A(Bus type)
Power range: 0.1kW~0.4kW





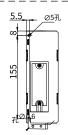


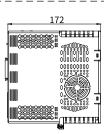


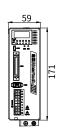
Weight:0.82kg

➤ SIZE-B(Impulsive)
Power range:0.75kW~1kW





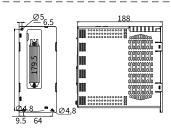


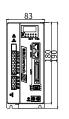


Weight:1.10kg

➤ SIZE-E Power range: 1.5kW~3kW



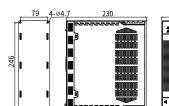


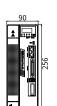


Weight:1.90kg

SIZE-F
Power range:4kW~7.5kW







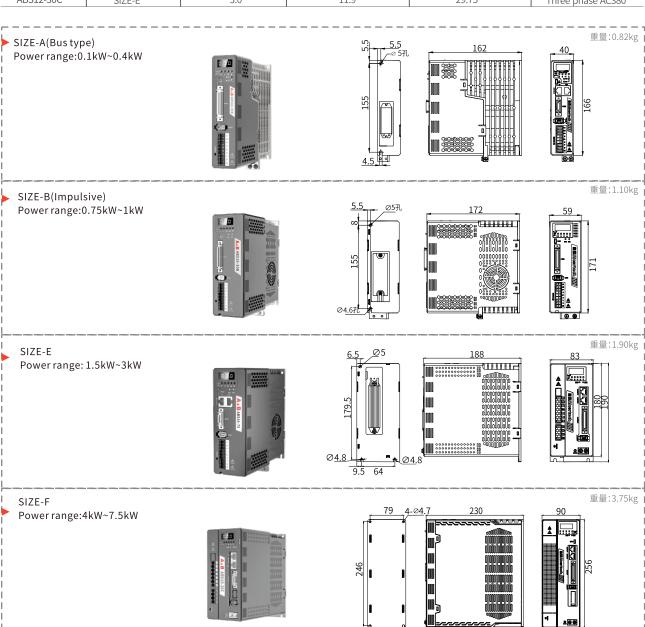
Weight:3.75kg

ABS12 Series

AC servo drive

注:型号中控制方式、编码器反馈类型等以"*"代替, 更多具体型号可参考型号说明以及咨询客服。

	ABS12 series AC servo drive				
型号	Size	Power (kW)	Rated Current Output (A)	Maximum Current Output (A)	Input Current(V)
ABS12-02A*	SIZE-A	0.2	1.6	5.8	Single phase Ac220
ABS12-04A*	SIZE-A	0.4	2.8	10.1	Single phase AC220
ABS12-07A*	SIZE-B	0.75	5.5	16.9	Single phase AC220
ABS12-10A*	SIZE-B	1.0	7.6	23.0	Single phase AC220
ABS12-15A*	SIZE-B	1.5	11.6	32.0	Single phase AC220
ABS12-15B*	SIZE-E	1.5	11.6	32.0	Three phase AC220
ABS12-20B*	SIZE-F	2.0	18.0	45	Three phase AC220
ABS12-25B*	SIZE-F	2.5	22.0	55	Three phase AC220
ABS12-20C*	SIZE-E	2.0	8.4	20.0	Three phase Ac380
ABS12-30C*	SIZE-E	3.0	11.9	29.75	Three phase AC380



Primary circuit Nocel SIZE-V(RS Single-phase AC 2001 ± 10%, 50,601±1; Nocel SIZE-V(Single-phase AC 2001 ± 10%, 50,601±1; Nocel SIZE-V(Single-phase AC 2001 ± 10%, 50,601±1; Novel Primary circuit Pri	Project		Specification parameters		
Power supply Final Part (2007) ± 10 km, 50 (50 kg); 10 km, 50 (50 k		<u>J</u>			
Power supply Primary circuit Free phase AC220V±10%, \$0,000±2; Power supply Primary circuit Three phase AC220V±10%, \$0,000±2; Power supply Three phase AC220V±10%, \$0,000±2; Note AC220V and AC230V are not insertiangeable! Model SZE-F. Three phase AC230V±10%, \$0,000±2; Note AC220V and AC230V are not insertiangeable! Model SZE-ABJE-Powered via bustian: Model SZE-ABJE-Powered via bustian: Model SZE-ABJE-Powered via bustian: Vacation method Control circuit Sende phase AC220V±10%, \$0,000±2; Single phase AC220V±10%, \$0,000±2; Single phase AC220V±10%, \$0,000±2; Single phase AC220V±10%, \$0,000±2; Power supply voltage as follows: Single phase AC220V±10%, \$0,000±2; Power supply voltage as follows: Single phase AC220V±10%, \$0,000±2; Power supply voltage as follows: Single phase AC220V±10%, \$0,000±2; Power supply voltage as follows: Single phase AC220V±10%, \$0,000±2; Power supply voltage as follows: Control method Power supply Control method Model SZE-EFS Bustian busing resistor (section) Polase command models Power supply Recision and supply s					
Power supply Powe					
Power supply Primary circuit Three phase AC3807±10%, 50,6004; not interchangeable; note of AC3807 are not interchangeable; not company and account of the company of the company and account of the company of the					
Note: AC220V and AC380V are not interchangeable! Model SIZEF. The voltage level can be selected as follows based on the compatible motor: Three phase AC260V±10%, \$0,060Hz; Three phase AC360V±10%, \$0,060Hz; Note: AC20V and AC380V are not interchangeable! Model SIZEF. Classified according to main circuit power supply voltage as follows: Single phase AC280V±10%, \$0,060Hz; Single phase AC280V±10%, \$0,060		Duine a me aiment			
Model SIZE F. The voltage level can be selected as follows based on the compatible motor: Three phase AC280/±10%, 50/60±; Note-AC200/ and AC380 war not interchangeable! Model SIZE ALB/E Powered via busbar Model SIZE ALB/E Bullish bridge via		Primary circuit			
Power supply Power supply Notes AC20V±10%, S0/60Hz; Three phase AC380V±10%, S0/60Hz; Notes AC20V and AC380V are not interchangeable! Single phase AC20V±10%, S0/60Hz; Notes AC20V and AC380V are not interchangeable! Notes AC20V and AC380V are not intercha					
Note ACCON and AC380V are not interchangeable	Power supply				
Model SZEA-RBKE Powered via busbar Model SZEA-RE Powered via busbar Model SZEA-RE Powered via busbar					
Model SZEF. Classified according to main circuit power supply voltage as follows					
Control circuit Single phase AC220V±10%, S0/60Nt; Single phase AC320V±10%, S0/60Nt; Single phase AC320V±10%, S0/60Nt; Solicit Note AC220V and AC380V are not interchangeable!					
Single phase AC380V±10%, 50;60Hz; Note: AC200V and AC380V are not interchangeable! Control method					
Note: AC220Y and AC380Y are not interchangeable!		Control circuit			
Control method Field Oriented Control (FOC) Operating Mode					
Control method Field-Oriented Control (FOC) Operating Mode ViCcommunication, EtherCATCommunication, ModebusCommunication Modebu			Ŭ .		
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Braking Resistor Model SIZE-E/F. Bullt-in braking resistor (external resistor can be connected when capacity is insufficient) Pulse command mode Pulse command mode Pulse-direction; CW pulse - CCW pulse, Phase A+Phase B External pulse control/Mode External pulse control/Mode Peedforward gain Torque limit Internal parameter setting Torque control mode Torque control mode Speed limit Internal parameter setting Torque control activation of the setting Internal parameter setting Torque control activation of the setting Internal parameter setting Torque control activation of the setting Internal parameter setting Torque control activation of the setting Internal parameter setting Torque control activation of the setting Internal parameter setting Torque control activation pulse output Internal parameter setting Torque division pulse output Internal parameter setting Torque output In			· · ·		
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Command control mode Bus communication control/analog quantity		<u> </u>			
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Torque controlmode Speed limit Internal parameter setting		<u> </u>	*		
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Encoder feedback type Absolute value formula: 17bit/23bit(single or multiple cycles); Magnetic/Optical Encoding Protection grade IP20 Usage temperature -10°C~+50°c (When the ambient temperature is between 40°C~50°C, the average load rate should not exceed80%) Humidity Below 90% RH(no freezing or condensation allowed) Vibration & Wibration below4.9m/s²; Impact below 19.6m/s² Altitude The highest usage altitude is 2000m.At an altitude of over1000m, for every 100m increase, the power decreases by 1.5%			JOG mode/alarm recording/origin setting, etc		
Protection grade IP20 Usage temperature -10°C~+50°c (When the ambient temperature is between 40°C~50°C, the average load rate should not exceed80%) Humidity Below 90% RH(no freezing or condensation allowed) vibration &Impact Vibration below4.9m/s²;Impact below 19.6m/s² Altitude The highest usage altitude is 2000m.At an altitude of over1000m,for every 100m increase, the power decreases by 1.5%	Communication	n interface	Modbus-RTU/EtherCAT		
Usage temperature -10°C~+50°c (When the ambient temperature is between 40°C~50°C, the average load rate should not exceed80%) Humidity Below 90% RH(no freezing or condensation allowed) Vibration & Vibration & Vibration below 4.9 m/s²; Impact below 19.6 m/s² Altitude The highest usage altitude is 2000 m. At an altitude of over 1000 m, for every 100 m increase, the power decreases by 1.5%	Encoder feedba	ck type	Absolute value formula: 17bit/23bit(single or multiple cycles); Magnetic/Optical Encoding		
environmental condition Humidity Below 90% RH(no freezing or condensation allowed) Vibration &Impact Vibration below 4.9m/s²;Impact below 19.6m/s² Altitude The highest usage altitude is 2000m.At an altitude of over1000m,for every 100m increase, the power decreases by 1.5%	Protection grade	е	IP20		
environmental vibration & Vibration below 4.9 m/s²; Impact below 19.6 m/s² Altitude The highest usage altitude is 2000 m. At an altitude of over 1000 m, for every 100 m increase, the power decreases by 1.5%		Usage temperature	-10°C~+50°c(When the ambient temperature is between 40°C~50°C, the average load rate should not exceed80%)		
condition Altitude The highest usage altitude is 2000m.At an altitude of over1000m,for every 100m increase, the power decreases by 1.5%		Humidity	Below 90% RH(no freezing or condensation allowed)		
The figurest usage attitude is 2000/fi.At an attitude of over 1000/fi,for every 100/fi increase, the power decreases by 1.5%	environmental	Vibration &Impact	Vibration below4.9m/s²;Impact below 19.6m/s²		
Others No static interference, strong magnetic field, strong electric field, no corrosive gases, flammable gases, oil stains, dust, etc	condition	Altitude	The highest usage altitude is 2000m.At an altitude of over1000m,for every 100m increase, the power decreases by 1.5%		
		Others	No static interference, strong magnetic field, strong electric field, no corrosive gases, flammable gases,oil stains, dust, etc		

ABS20 Series

AC servo drive

► AC servo drive models

		ABS20 ser	ies AC servo drive		
Model	power (kW)	output current (A)	maximum output current (A)	Size	Input power supply(V)
ABS20-02*	0.2	1.6	5.0	SIZE-A	AC220
ABS20-04*	0.4	2.6	7.9	SIZE-A	AC220
ABS20-07*	0.75	5.1	15.5	SIZE-A	AC220
ABS20-10*	1.0	7.0	21.0	SIZE-C	AC220
ABS20-15*	1.5	8.3	25.1	SIZE-C	AC220
ABS20-22*	2.2	7.5	18.8	SIZE-E	AC380
ABS20-30*	3.0	10.0	24.0	SIZE-E	AC380
ABS20-55*	5.5	16.0	38.0	SIZE-E	AC380
ABS20-75*	7.5	25.0	60.0	SIZE-E	AC380
ABS20-110*	11.0	25.5	60.5	SIZE-G	AC380
ABS20-150*	15.0	35	82.5	SIZE-G	AC380
ABS20-220*	22.0	50	115	SIZE-G	AC380

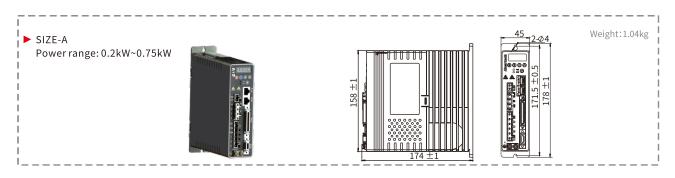
► Specification parameter table

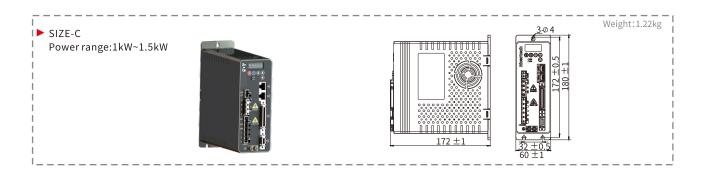
	Project	Specification parameters		
Power supply	Main circuit	Single phase AC220V \pm 10%; Three phase 220V \pm 10%		
		Three phase 380V \pm 10%		
	Loop	Busbar power supply		
	Cooling method	≤750kW: natural cooling; >750kW: forced air cooling		
Control mode		FOC		
Mode		I/O communication		
Braking resistor	r	Built-in (connected when capacity is insufficient)		
	Maximum input pulse frequency	Optocoupler input: 500KHz Differential input: 4MHz		
	Pulse command mode	Pulse+direction; CW pulse+CCW pulse, Phase A+Phase B		
Position control mode	Command control mode	External pulse control/bus communication control		
Control mode	Feedforward gain	Internal parameter setting		
	Torque limit	Internal parameter setting		
	Electronic gear ratio	N=1~32767, M=1~65535, N/M=0.02~5000		
	Command control mode	Bus communication control/analog quantity		
	Torque limit	nternal parameter setting		
control mode	Speed control range	1~6000rpm		
	Acceleration and deceleration methods	Linear acceleration and deceleration or S-shaped acceleration and deceleration		
_	Command control mode	Internal instructions		
Torque control mode	Speed limit	Internal parameter setting		
control mode	Torque control accuracy	±2%		
	Encoder frequency	A-phase, B-phase, Z-phase: differential output		
	division pulse output	Frequency division pulse number: (16~32768) can be set arbitrarily		
Digital		Number of points: 6		
Input/Output	Assignable input signal	Servo enable/forward drive disable/reverse drive disable/bias count reset/zero speed clamp/alarm reset/origin input		
		Near origin input/forward limit position/reverse limit position, etc		
	Assignable input signal	Number of points: 6		
	Assignable input signal	Alarm signal/positioning completed/speed reached/servo ready/zero speed detection/brake opening, etc		
Protection function		$Overcurrent/overvoltage/undervoltage/overload/overheating/encoder\ error/speed\ deviation/position\ deviation/limit, etc.$		
Auxiliary functions		JOG mode/alarm recording/origin setting, etc		
Communication interface		Modbus-RTU / CANopen / EtherCAT		
Encoder feedback type		Absolute value formula: 17bit/23bit (single or multiple turns)/rotary transformer/user specified		

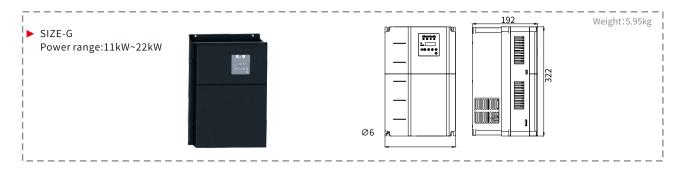


Project		Specification parameters
Protection grade		lp20
	Usage temperature	-20 °C~+55 °C (When the ambient temperature is between 40 °C~50 °C, the average load rate should not exceed 80%)
environmental condition	Humidity	Below 90% RH (no freezing or condensation allowed)
	Vibration &Impact	Vibration below 4.9m/s²; Impact below 19.6m/s²
	Altitude	The highest usage altitude is 2000m. At an altitude of over 1000m, for every 100m increase, the power decreases by 1.5%
	Others	No static interference, strong magnetic field, strong electric field, no corrosive gases, flammable gases, oil stains, dust, etc

► External dimensions







Note: For the appearance of SIZE-E and SIZE-F models with power ranging from 2kW to 7.5kW, please refer to the dimension drawings of the ABS10 series.